

ABSTRACT OF THE DISCLOSURE

A system, method, and computer program product for sharing bandwidth by a plurality of devices in a wireless personal area network or a wireless local area network. A media access control protocol frame includes a beacon signal sent from a coordinator including coordination information to each of the devices of the WPAN, an optional contention access period, and a contention free period that includes an additional shared period that is managed as a slot cycle time division multiple access period, a polling period, or as management period. The coordination information includes a device-unique start time indicator and a transmission duration defining a guaranteed time slot within the contention free period of the frame for each of the networked devices. Each of the network devices sleeps while not receiving the beacon and not transmitting data during their guaranteed time slot, thereby reducing power consumption as compared to slot cycle time division multiple access or polling schemes which require listening by all devices during the contention free period.

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